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## Exploring the affordances of virtual fieldwork in a multi-user, 3-D digital environment

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#### How to cite:

Argles, Thomas; Minocha, Shailey and Burden, David (2015). Exploring the affordances of virtual fieldwork in a multi-user, 3-D digital environment. In: Higher Education Network (HEN) Annual Meeting of the Geological Society of London, 21-22 Jan 2015, Plymouth University, Plymouth.

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Version: Version of Record

Link(s) to article on publisher's website:

<https://www.plymouth.ac.uk/whats-on/geological-society-conference-sharing-educational-practice-in-the-geosciences>

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# Virtual Skiddaw:

Exploring the affordances of virtual fieldwork in a multi-user, 3-D digital environment



The Open University

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## What we built



100 km<sup>2</sup> area

real data, maps

6 detailed sites

higher res

hand specimens

task lists

Navigation

avatars

guided (linear)

free-roaming

teleports

Chat

range adjustable

Support

manual, transcripts

## Gaming VFTs: challenges

- Cost:** resources, people, time
- Real data:** detail vs performance
- Framework:** self-contained vs adaptable
- Comparisons:** virtual vs physical fieldwork
- Overload:** not alienating non-gamers...

Legless avatar



How to combat fear that VFTs might replace real field teaching?



## Gaming engine: affordances

- '3D' landscape** – geology in context; spatial literacy
- Rich interface** – interactivity and immersion
- Self-contained** – (mostly): little linked material
- Multi-user** – especially for distance learners
- 'More than fieldwork'** – do something different:
- flying
  - aerial views, map overlays
  - in-world cross-section
  - teleports (time-saving)
  - fadable avatars

What about:  
F2F students?  
or schools?



## Evaluation & the future...

### 1. V-skiddaw at the OU

eSTEEem project + Steve Tilling

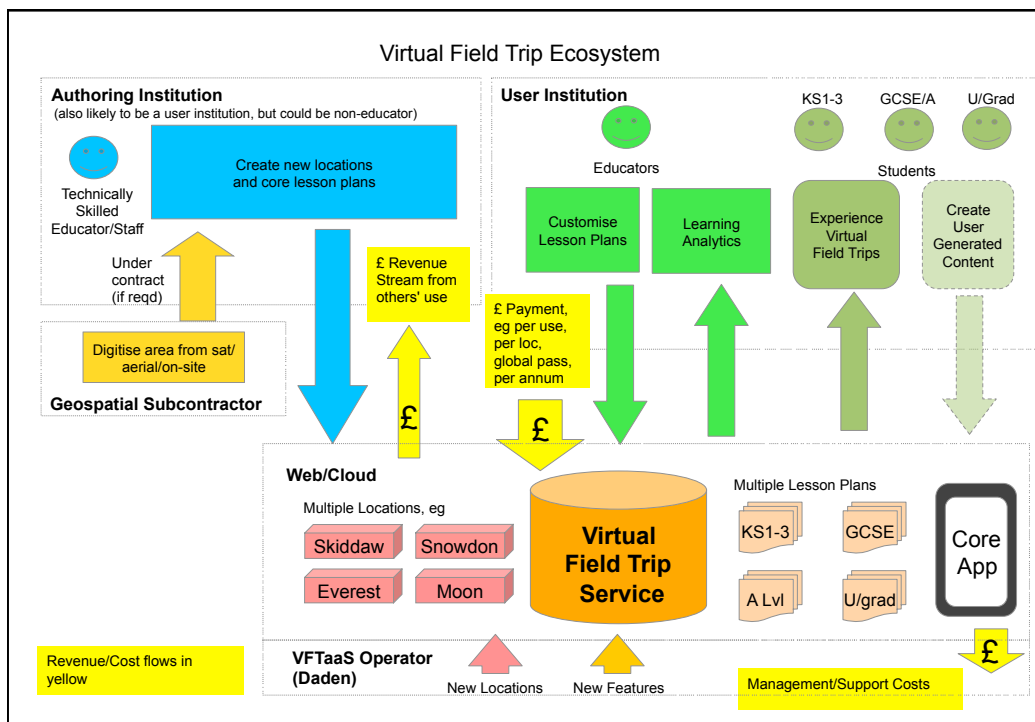
### 2. V-skiddaw for A-Level students

### 3. A Virtual Field Trip Service

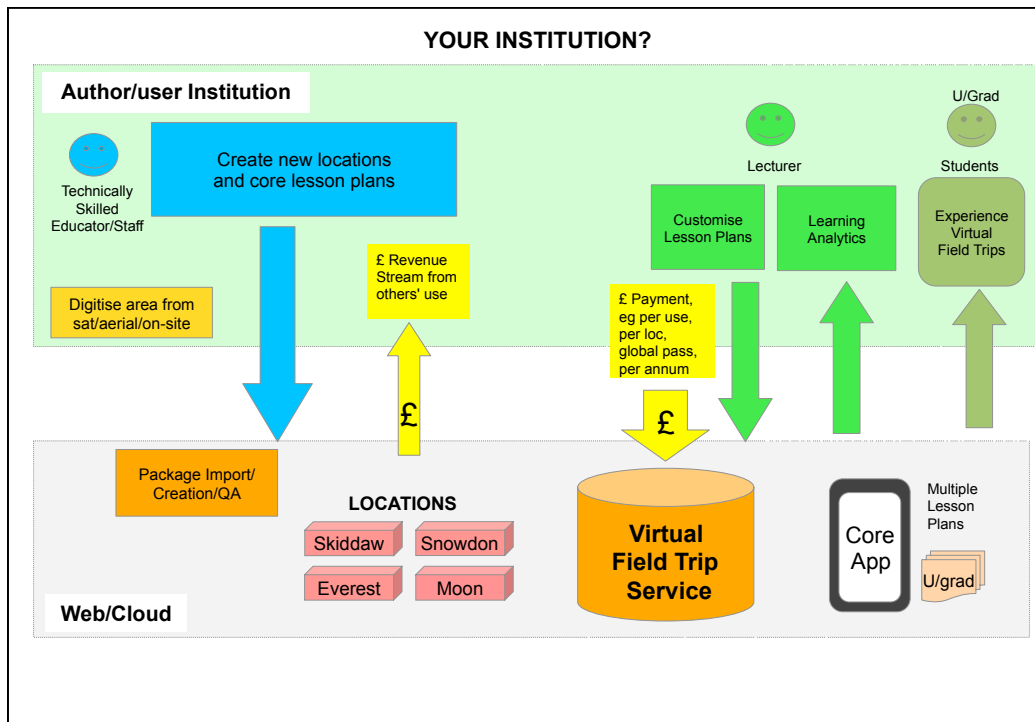
innovate UK project

Daden Ltd, DesignThinkers, OU

What about:  
F2F students?  
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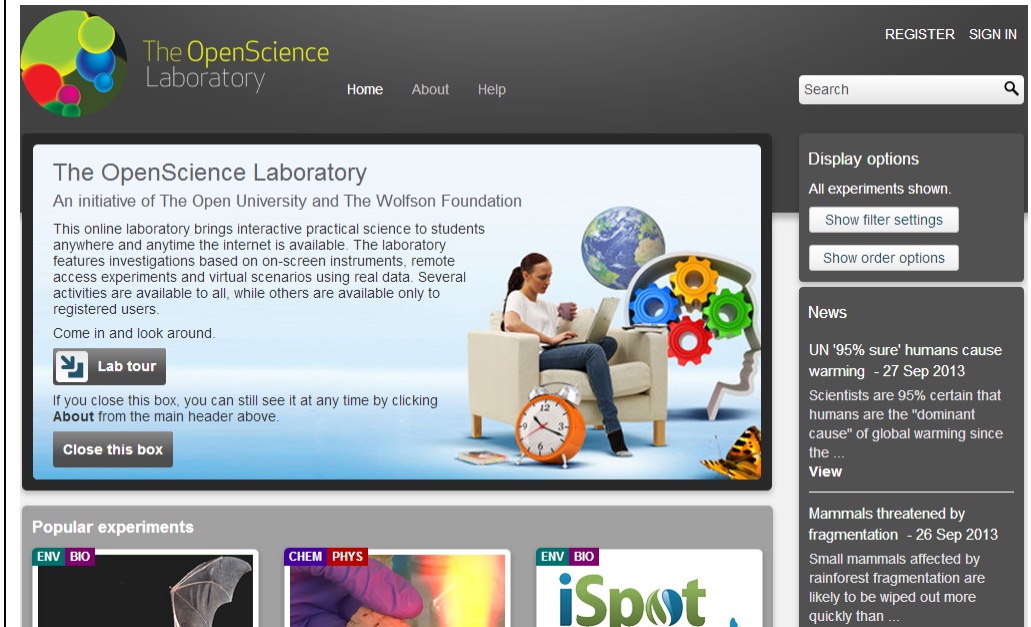




## Questions for you

1. Main attractions of Virtual Skiddaw?
2. How would you use a similar VFT?
3. Should we make more?
4. Would you like to be involved?

## Shameless plug...



The screenshot shows the homepage of The OpenScience Laboratory. The header includes the logo, navigation links (Home, About, Help), and user options (REGISTER, SIGN IN). A search bar is located on the right. The main content area features a large banner with the text "The OpenScience Laboratory" and "An initiative of The Open University and The Wolfson Foundation". Below this, a paragraph describes the laboratory's mission, followed by a "Lab tour" button and a "Close this box" button. To the right of the banner is a "Display options" section with "All experiments shown." and buttons for "Show filter settings" and "Show order options". Below this is a "News" section with two articles: "UN '95% sure' humans cause warming - 27 Sep 2013" and "Mammals threatened by fragmentation - 26 Sep 2013". At the bottom, there is a "Popular experiments" section with three featured experiments: "ENV BIO", "CHEM PHYS", and "iSpot".

## Project team (1)

### Open University

Shailey Minocha – *leader, virtual worlds*

Tom Argles – *geologist*

Brian Richardson – *production manager*

Kat Garrow – *project manager*

Sarah Hack – *graphic designer*

Nick Braithwaite – *OSL Director*

Sarah Davies – *academic consultant*

### Trent & Peak Archaeology

David Strange-Walker – *LiDAR, photogram*



## Project team (2)

### Daden Ltd

David Burden – *project lead*

Paul Rahme – *programmer*

Macdonald Mbaya – *programmer*

Darrell Smith – *project manager*

Tim Lozinski – *graphics/environment*

Iain Brazendale – *programmer*

Lucy Smallwood-Rose – *administrator*

Guy Wallace – *graphic designer*

Chris Stevens – *programmer*

